

The Mediating Roles of Fear of Compassion from Self and Others, Self-Compassion, and  
Perceptions of Social Support on the Relationships between Self-Criticism and  
Depressive Symptoms

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## **Dedication**

To those who need compassion from self and others.

## **Abstract**

Empirical studies indicate that people who harshly criticize themselves are likely to suffer from a range of psychological problems. Depression is one of the common psychological problems suffered by self-critical people (e.g., Cantazaro & Wei, 2010; Mongrain & Leather, 2006). However, despite observed relationships between self-criticism and depressive symptoms, there has been little to no investigation of the mechanisms in play in the prediction of depressive symptoms among self-critical people. The present study is an investigation of the relationship between self-criticism and depressive symptoms as mediated by fear of compassion, self-compassion, and the feeling that one is important to others dimension of one's perceptions of social support (aka perceptions of social support). To model these relationships, the Self-Criticism/Compassion Mediation model was developed and tested via Structural Equation Modeling.

Undergraduate students at a midwestern university participated in the study and completed an online survey. A total of 206 completed surveys were analyzed. Goodness-of-fit indicators (e.g., CFI, TLI and RMSEA) showed that the Self-Criticism/Compassion Mediation model fit the data adequately. In this model, three-path mediated effects (Taylor, MacKinnon, & Tein, 2007) showed that fear of compassion from self and others, self-compassion, and perceptions of social support mediated the relationship between

self-criticism and depression, with self-criticism positively related to fear of compassion, which in turn was negatively related to self-compassion and perceptions of social support, respectively, which in turn were negatively related to depressive symptoms. Additionally, a two-path mediated effect showed that self-compassion mediated the relationship between self-criticism and depressive symptoms in the negative direction.

These results indicate that fear of compassion could be a reason that people who are more self-critical experience more depressive symptoms. Self-critical people's fear of compassion was related negatively to self-compassion in this model, indicating that the more afraid a person is of compassion, the less self-compassion that person has. Another reason, as indicated by these results, is that people who have a greater fear of compassion perceive others are not interested in them, which then leads to higher levels of depressive symptoms. In addition, a lack of self-compassion itself could also explain the relationship between self-criticism and depressive symptoms. The author of this study examined reversed relationships among the study variables, acknowledging that these relationships may also be interpreted in the other direction, and found the current interpretation is not only consistent with theory, but also fits the data better.

These findings suggest that to reduce self-critical people's depressive symptoms, it is important to help them manage their fears of receiving compassion from self and

others, to develop self-compassion, and to learn to reach out for social support.

Implications for practice and future studies are discussed.

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## **Chapter 1**

### **Introduction**

#### **The Relationship between Self-Criticism and Depressive Symptoms**

There appears to be an undeniable link between self-criticism and depressive symptoms. Research has consistently shown that self-critical people are more prone to depressive symptoms (Mongrain & Leather, 2006), and that depressed people are more prone to self-criticism (Teasdale & Cox, 2001). For example, research has shown that self-criticism predicts the recurrence of major depression (Mongrain & Leather, 2006). Theory has supported this observation, as well. For example, Beck (1964) theorized that depressed people selectively focus on information congruent with their existing negative self-concepts and generally attribute blame to themselves. Likewise, self-criticism leads to greater depressive symptoms, and reduction in self-critical behavior also can lead to reduction in depressive symptoms. Beck, Rush, Shaw, and Emery (1979) asserted that “Correction of these faulty dysfunctional constructs can lead to clinical improvement in depressed clients” (p. 8).

However, a continual challenge to helping clients reduce self-critical behavior is that self-criticism is a relatively stable personality factor that is embedded in one’s personality structure. Thus, it becomes very difficult for clients to make this behavioral change (Mendelson & Gruen, 2005). Therefore, an investigation of the mediators between self-criticism and depressive symptoms could help identify those internal and

external systems that support this relationship and that could be modified through counseling, thus breaking the cycle of self-criticism leading to depressive symptoms. Identifying mediators could help psychologists formulate more effective treatments for highly self-critical, depressed clients, thus reducing both their self-critical behaviors, and by doing so reduce their depressive symptoms (Cantazaro & Wei, 2010; MacKinnon, Krull, & Lockwood, 2000).

In the following sections of Chapter 1, based on theories and empirical findings, I will discuss potential mediators that have been suggested by theory and prior research that may be occurring in the relationship between self-criticism and depressive symptoms.

### **Mediators between Self-Criticism and Depressive Symptoms**

**Self-Compassion.** Self-compassion can serve as a mediator between self-criticism and depressive symptoms. Compassion is defined as the empathic concern for suffering and the desire to alleviate it (Goetz, Keltner, & Simon-Thomas, 2010). Self-compassion is a psychological construct that is comprised of the desire to relieve one's own suffering and by doing so to contribute to one's own well-being. Self-compassionate people have the knowledge and intention to treat themselves with kindness. Self-compassion also involves seeing one's own failures and mistakes as stemming from the fallibility that is shared by all human beings (i.e., the human condition) (Neff, 2003a).

Thus, self-compassion may operate as a mediator between self-criticism and depressive symptoms by reducing the negative effects of self-criticism on depressive symptomology.

There are growing numbers of people in Western societies who try to apply Buddhist teachings concerning the cultivation of compassion to their daily lives in order to help them deal with life's challenges and difficulties (Perera, 2008). In these teachings, compassion has two objects – oneself and others (Goetz et al., 2010). Having compassion toward others helps one to become interested in their struggles, understand their distress, and desire to reduce their pain (Wispe, 1991). Moreover, there are many advantages to being compassionate towards others, such as feeling connected and having better interpersonal relationships with them, which in turn can increase one's own emotional well-being and satisfaction with life (Wei, Liao, Ku, & Shaffer, 2011).

The other object of compassion is compassion towards oneself. People can be empathetic towards themselves by understanding their own pain and desiring to reduce it by not judging themselves harshly in the face of their inadequacies and failures. Self-compassionate people make an effort to reduce their pain through treating themselves with kindness and gentleness (Neff, 2003a). In addition, having compassion for oneself enables people to have the emotional resources to be compassionate toward others (Brach, 2003; Neff, 2004), which has the added benefit of engendering social support. Self-compassion incorporates mindfulness, and depends on people being aware of their own emotions towards self (Neff, 2003a). Instead of being immersed in negative

emotions or avoiding painful emotions, self-compassionate people are emotionally aware of and connected to their feelings.

Research has demonstrated that self-compassion has many beneficial effects on mental health and adaptive functioning (Neff, 2004). There is a growing body of evidence, for example, that indicates that self-compassion is effective in reducing stress, depression, and anxiety (Allen & Leary, 2010; MacBeth & Gumley, 2012; Neff, 2003b, 2011; Neff, Hsieh, & Dejitterat, 2005; Neff, Rude, & Kirkpatrick, 2007). Recognizing the benefits of self-compassion in the treatment of clients, psychotherapists have attempted to integrate traditional psychotherapy techniques and treatments designed to increase compassion toward oneself. For example, in the third wave of psychotherapy interventions (e.g., Dialectical Behavioral Therapy (DBT; Linehan, 1993), imagery work (Gilbert & Irons, 2004), the Gestalt two-chair technique (Whelton & Greenberg, 2005), Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999), Mindfulness Based Cognitive Therapy (MBCT; Segal, Williams, & Teasdale, 2002), and Compassion Focused Therapy (CFT; Gilbert, 2005, 2010)), therapists have actively incorporated the development of a compassionate attitude towards oneself in order to ameliorate psychological distress and promote well-being (Barnard & Curry, 2011; MacBeth & Gumley, 2012). These interventions have been used to try to change individuals' relationships with their emotional problems (MacBeth & Gumley, 2012). This means that instead of fighting against their problems, people are encouraged to be



compassionate towards themselves concerning their own struggles, difficulties, pain, mistakes and failures. They are encouraged to monitor their thoughts and emotional reactions to their problems. Instead of engaging in self-criticism, they commit to making constructive changes, such as seeking to understand their own problems in light of the inevitability of human failures, being more patient with themselves, and treating themselves with greater gentleness and compassion (Gilbert, 2005, 2010).

However, research has also shown that people who tend to be highly self-critical have difficulty learning to be self-compassionate (Gilbert, 2010). Clients who are highly self-critical tend to benefit less from therapeutic interventions designed to teach them to be compassionate, and also tend to experience more treatment failures when involved in compassion-developing counseling experiences. For example, Zuroff and Fitzpatrick (1995) reported that the self-critical people in their study had a fear of disapproval and rejection, and they wanted to avoid situations where they might be disapproved of or rejected. They did not want to forgive themselves for their faults and mistakes. They were too embarrassed and ashamed to share their problems with others, even with their own therapists. Therefore, they were less likely to develop compassion toward themselves.

**Perceptions of Social Support.** Social support can have many beneficial effects on people's mental health. Perceptions of social support can serve as a mediator between self-criticism and depressive symptoms in the negative direction. Ways that social support can make a difference is that persons who perceive that they are being supported

socially believe that they matters and are important to others (Elliot, Kao, & Grant, 2004). Elliot, Kao, and Grant (2004) hypothesize that when people believe they matter, they feel that they are in other people's awareness, that they are important to others, and that they feel that others rely on them. Feeling important to others is the most salient aspect of social support (Elliot et al.). Thus, this research characterizes social support outcomes as people's feelings that they are important to others.

There is general agreement among psychological researchers that social support is a beneficial resource that individuals receive from friends and family (Dixon & Kurpius, 2008, p. 24), and that social support has a positive effect on people's mental health (Allgöwer, Wardle, & Steptoe, 2001; Hefner & Eisenberg, 2009; Rayle & Chung, 2007). Conversely, Bowlby's (1969, 1973, 1980) attachment theory implied that people with insecure attachment styles tend to be self-critical and perceive others as uncaring or rejecting (Cantazaro & Wei, 2010). Priel and Shahar (2000) also indicated that self-critical people reported decreased social support over time. Conversely, lack of social support decreased people's self-esteem, which made them more self-critical (Atkins, 2010). In addition, there is evidence that social support is closely related to depression (Dixon & Kurpius, 2008; Hefner & Eisenberg, 2009; Rayle & Chung, 2007). Lower levels of perceived social support have been shown to predict depressive symptoms (Cohen & McKay, 1984). People with depression are more likely to withdraw from social interaction and less likely to seek support from others (Padesky & Hammen, 1981).

Given the beneficial effects of self-compassion and social support from others on self-criticism and depression, it can be assumed that self-compassion and social support play a key role in reducing the effect of self-criticism on depressive symptoms.

**Fear of Compassion.** Just as self-compassion and social support can mediate the relationship between self-criticism and depression in a negative direction, fear of compassion can decrease the positive effects of self-compassion and social support on depressive symptoms in self-critical people. Fear of compassion is defined as experiencing compassion from self and others as threatening (Liotti, 2009). This construct has not been well-studied. However, a few studies have shown that upon experiencing compassion from others, self-critical people have physiological reactions, such as decreased heart rate variability, that non-self-critical people do not have (Rockliff, Gilbert, McEwan, Lightman, & Glover, 2008). These physiological reactions may be related to feelings of fear of compassion (Gilbert, McEwan, Matos, & Rivis, 2011). Other researchers have found that people with chronic mental health problems become doubtful, scared, and resistant to the movement toward developing self-compassion or seeking social support (Gilbert & Procter, 2006), suggesting yet another link between fear of compassion and poorer mental health. The results of these few studies suggest that fear of compassion is a viable construct that warrants further consideration, and may be a key variable in understanding how self-criticism is related to depression.

## **Chapter 2**

### **Literature Review**

This chapter reviews and critiques literature related to depressive symptoms, self-criticism, self-compassion, social support, and fear of compassion. Based on this literature review, a structural model is hypothesized that can be used to examine relationships among these variables, and more specifically, that can be used to examine the mediating effects of fear of compassion, self-compassion, and social support on the relationship between self-criticism and depressive symptoms.

#### **Depressive Symptoms**

Depression is one of the major concerns related to the academic success and graduation rates of college students (Dixon & Kurpius, 2008). Approximately 30% of college students who participated in the 2011 National College Health Assessment study reported that they had difficulty functioning in the recent past because of depressed mood (American College Health Association, 2012). Depression impairs college students' psychological, physical, and academic/occupational functioning (Kessler, Chiu, Demler, & Walters, 2005).

Life transitions can be stressful and anxiety-provoking, which can lead to depression, and going to a college is a major life transition for students. Thus, some students are struggling to adjust to a new environment while at the same time are experiencing social difficulties. In addition, a majority of college students experience

moderate or serious academic stress (Abouserie, 1994). Although many students who are having these adjustment challenges are able to successfully cope with the difficulties involved, some of them suffer from stress, anxiety and depression. These students may skip classes. They may have difficulty making new friends. They may drop out of school. They may even engage in life-threatening behaviors. Kisch, Leino, and Silverman (2005) reported that among 15,977 college students who participated in the National College Health Assessment Survey, 9.5% of them had contemplated suicide and 1.5% of them had attempted suicide. They found that there was a strong relationship between students' suicidal behavior and depressive symptoms. Although these findings showed that depression was associated with students' vulnerability to suicidal behavior, less than 20% of students at risk for this behavior reported that they sought treatment for their depression (Kisch, Leino, & Silverman, 2005). Other researchers also asserted that depression is one of the major risk factors for suicide in college students (Furr, Westefeld, McConnell, & Marshall, 2001). Furr and colleagues (2001) examined the relationship between self-assessed depression and suicide among college students and indicated that 53% of the students who participated in the study reported that they had experienced depression since they began college and 9% of them stated that they had considered committing suicide.

Impairment from depression is a huge obstacle to college student success. When examining the effects of college students' depression on academic impairment,

researchers reported that 92% of students with depressive symptoms missed classes and performed less well academically than their peers (Heiligenstein, Guenther, Hsu, & Herman, 1996). According to Heiligenstein et al. (1996), these students also reported that they felt inadequate, distressed, and not interested in school. Those students who were more severely depressed showed higher levels of impairment. However, they were less likely to seek help until they had academic problems.

Furthermore, people who are depressed are more likely to experience interpersonal problems. Coyne (1976a, 1976b) postulated that depressed people's behaviors and attitudes could lead to other people's rejection of them because they continuously seek reassurance from others to alleviate their depressed mood. According to Coyne (1976a, 1976b)'s theory, even when others give them reassurance, depressed people question whether others truly care about them, and they demand more frequent and more extreme reassurance due to their doubt (Joiner, Alfano, & Metalsky, 1992). Alternatively, it is also possible that some depressed people, especially depressed men, avoid contact with others and isolate themselves, which may be because highly depressed people feel hopeless and pessimistic about the benefits of seeking support from others (Padesky & Hammen, 1981).

### **Self-Criticism**

Overly self-critical people tend to hold unrealistically high standards for their own behavior, and they are not usually satisfied with their own performances even after

exerting extreme effort. Some people are self-critical so that they can avoid criticism from others. They are self-critical because they do not want to place themselves in a position in which they would be criticized by others. Self-critical people constantly engage in harsh self- evaluations in order to ascertain their success in meeting their personal standards. For example, Blatt and Homann (1992) reported that people who are overly self-critical have “a chronic fear of disapproval and criticism from others, and of losing the acceptance and love of significant others” (p.49). They tend to be obsessed with achievement and with being perfect in order to receive acceptance and approval from others (Blatt & Homann, 1992). They make many demands upon themselves, but no matter how much they achieve, they are likely to feel dissatisfied with their achievement and they immediately initiate the pursuit of another achievement in hopes that their next achievement will bring them satisfaction. If they do not meet their personal standards regarding achieving the goal they set, they perceive themselves to be failures and experience feelings of meaningless, worthlessness, and guilt (Blatt & Homann, 1992).

Self-critical people also have great difficulty in developing self-compassion (Gilbert, McEwan, Matos, & Rivis, 2011; Gilbert & Irons, 2004; Gilbert & Procter, 2006; Longe et al., 2010). People who are overly self-critical are more likely to have suffered from severe shame, which made them more prone to depressive symptoms (Cantazaro & Wei, 2010). In addition, researchers have suggested that experiencing affiliative emotions can trigger fear responses in self-critical people (Gilbert, 2010). For example, previous

studies found that a subgroup of depressed people became scared of feeling affiliative emotions. This was interpreted by the researchers that it was because they were very familiar with negative feelings, so that when they experienced unfamiliar feelings (e.g., being cared for) anxiety was evoked, and they were afraid that something bad would happen soon (Arieti & Bemporad, 1980; Gilbert & Procter, 2006).

Furthermore, self-critical people struggle not only with developing self-compassion, but also with receiving social support. In terms of overly self-critical people's interpersonal relationships, Zuroff and Fitzpatrick (1995) reported that "self-critics are ambivalent about interpersonal relationships because while they desire approval, respect, and admiration, they fear disapproval, loss of control, and autonomy" (p. 254). Priel and Shahar (2000), however, found social support mediated the relationship between self-criticism and emotional distress. In a longitudinal study, these researchers demonstrated that highly self-critical people reported decreased social support over time, which accounted for their increased emotional distress. In this study, self-criticism was negatively related to social support at Times 1 and 2, and lower levels of social support at Time 2 predicted higher levels of distress at Time 2.

Based on Bowlby's (1969, 1973, 1980) attachment theory, it is suggested that individuals' capacity for compassion is rooted in early attachment relationships with primary caregivers (Gilbert, 2005, 2010). Specifically, when experiencing failure or making a mistake, people with secure attachment styles are more compassionate towards



themselves than people with anxious or avoidant attachment styles because people who establish secure attachments have had the experience that others care for them. Gilbert and colleagues (2011) asserted that receiving compassion reactivates these people's emotional experiences with attachment figures, which might elicit fear of compassion, especially for people with insecure attachment styles. They also found that people with a fear of compassion from others are fearful of self-compassion.

Love, affection, and care are fundamental emotions in attachment systems (Bowlby, 1969, 1973, 1980; Gilbert et al., 2011). Experiencing love, affection, and care soothes the pain one is experiencing (Mikulincer & Shaver, 2007). The attachment system is critical in creating an internal working model of the self and others. It is especially important to establish the belief that the self is worthy to be loved or cared about, and that others are reliable and can be depended upon. Based on this internal working model of the self and others, researchers divide attachment styles into secure attachment and insecure attachment (Mattanah, Lopez, & Govern, 2011; Pietromonaco & Barrett, 2000). Those with secure attachment styles have positive emotional relationships with their caregivers. They are able to believe that they are worthy of love and that others are capable of providing them with affection, care, and love. However, insecure-attachment-style people have a negative self-image, and so they desperately seek comfort from others (anxious attachment) or feel that other people are not dependable when they need comfort or support. Thus, they do not expect to receive compassion from others

(avoidant attachment). Due to insecure attachment relationships, these people might experience many difficult emotions such as anxiety, guilt, anger, frustration, sadness, or despair. Therefore, it could be threatening to them to experience affiliative emotions such as compassion from themselves or others because this experience could reopen painful emotions they try to bury (Gilbert et al., 2011).

### **Self-Compassion**

When people make mistakes or things go wrong in their lives and they are not able to seek compassion from others, they can offer it to themselves (Barnard & Curry, 2011). Neff (2003a, 2003b) developed the operational definition and measures of self-compassion. She indicated that the construct of self-compassion involves acknowledging one's own suffering, being kind to oneself, and trying to alleviate one's own pain. More specifically, Neff (2003a) asserted that self-compassion consists of three main components:

“(a) *self-kindness*, which is being kind and understanding toward oneself in instances of pain or failure rather than being harshly self-critical, (b) *common humanity*, which is perceiving one's experiences as part of the larger human experience rather than seeing them as separating and isolating, and (c) *mindfulness*, which is holding painful thoughts and feelings in balanced awareness rather than over-identifying with them (p.85).”

When people fail or have painful experiences, how they respond to those experiences differs from person to person. People with more self-compassion are gentle with themselves, and do not judge themselves more harshly than they ought to. People with more self-compassion practice self-encouragement in order to better cope with mistakes and failures. In contrast, people with less self-compassion become very critical of, feel ashamed of, and blame themselves (Neff, 2003a).

In addition, people with high self-compassion regard challenges as a natural process of human life. Thus, they often perceive their struggles as experiences that are common to mankind. They acknowledge and even embrace their difficult experiences, instead of feeling isolated and victimized (which is a more common response among people who have less self-compassion). Furthermore, while people with more self-compassion are good at acknowledging and regulating their feelings, those with less self-compassion are preoccupied with their emotions. For example, they become over-identified with their own negative emotions, or they avoid realizing their own moods. Thus, various magnitudes of self-compassion are associated with various reactions to pain and failure, which greatly influences people's adjustment to difficult situations (Wei et al., 2011).

Many studies reported the positive influence of self-compassion on mental and physical health and provided empirical evidence for the importance of self-compassion to improve well-being, reduce depression and anxiety, and cope with stress (Allen & Leary,

2010; Neff, 2003b, 2011; Neff, Hsieh, & Dejitterat, 2005; Neff, Rude, & Kirkpatrick, 2007). MacBeth and Gumley (2012) conducted a meta-analysis on relationships among compassion, mental health, and psychopathology. They found a large effect size for these relationships and reported that higher levels of self-compassion were related to higher levels of mental health and lower levels of psychopathological symptoms. Specifically, when coping with stressful events, self-compassionate people are more likely to employ positive cognitive reframing and less likely to rely on avoidance (Allen & Leary, 2010; Neff et al, 2005). Self-compassion has been positively associated with emotional intelligence and life satisfaction, and negatively with anxiety and depression after controlling for the effects of self-esteem (Neff, 2003b). Neff and colleagues also provided the empirical evidence that self-compassion was negatively related to negative affect and neuroticism, but positively related to wisdom, personal initiative, curiosity, exploration, happiness, optimism, positive affect, extroversion, agreeableness, and conscientiousness (Neff, Rude, & Kirkpatrick, 2007). Recently, a study found that by developing self-compassion, college students dealt with their social and academic difficulties better, and reported lower levels of homesickness and depression and greater satisfaction with their decision to attend college (Terry, Leary, & Mehta, 2012).

### **Perceived Social Support**

Perceived social support can be considered “a sense that others will provide for specific needs that one experiences, such as emotional support during difficult times or

information required to accomplish a task” (Elliott, Colangelo, & Gelles, 2005, p.224).

When a person experiences social support, he or she experiences feeling important to other people so that these other people are perceived as being truly interested in his or her welfare (Rosenberg & McCullough, 1981).

Several studies have demonstrated the positive effects of perceived social support on people’s mental health and physical health, especially in college student populations (Allgöwer, Wardle, & Steptoe, 2001; Cohen & Hoberman, 1983; Compas, Wagner, Slavin, & Vannatta, 1986; Dixon & Kurpius, 2008; Hefner, & Eisenberg, 2009; Rayle & Chung, 2007). Allgöwer and colleagues (2001) found that university students with less perceived social support engaged in negative health-related behaviors, such as a lack of physical activity, not getting enough sleep, and not using a seat belt. This could be interpreted as those who feel they are cared for by others are more likely to engage in self-care behaviors (Gallagher, Luttik, & Jaarsma, 2011).

Many studies have demonstrated that developing new social support systems is one of the critical factors in aiding college students to adjust to their new environments (Compas et al., 1986; Rayle & Chung, 2007). This is especially important among college students who leave home to enter college and therefore are dealing with separation from family and friends. Cohen and Hoberman (1983) demonstrated that in a sample of college students, the perceived availability of social support moderated the relationship between negative life stress and depressive symptoms, and between negative life stress and

physical symptoms, such as headaches and weight loss. They asserted that social support serves as a buffer to the negative effects of stressful events.

Their hypotheses were also supported by other researchers. For example, Dixon and Kurpius (2008) reported that receiving social support from others could negatively predict depression. Hefner and Eisenberg (2009) evaluated the relationship between social support and mental health with 1,378 college students. They found that college students with lower quality social support had more mental health problems. The authors interpreted this to mean that social support is important to students' well-being and success in college. A recent study also showed college students' sense of being important to others mediated the relationship between attachment avoidance and anxiety, and the relationship between attachment avoidance and mental health (Raque-Bogdan, Ericson, Jackson, Martin, & Bryan, 2011). In contrast, a perceived lack of social support, loneliness or isolation, has been shown to have negative associations with physical health, including accelerated physiological aging and cardiovascular health risks (Caspi, Harrington, Moffitt, Milne, & Poulton, 2006; Hawkley & Cacioppo, 2007; Raque-Bogdan et al., 2011). As indicated in the study by Elliott, Kao, and Grant (2004), and mentioned earlier in this dissertation, people who perceive that they are being supported by friends, peers, family and significant others experience feelings of being important to others; and indeed, these researchers have shown a large amount of shared variance between feeling socially supported and feeling important to others and that one's ideas,

thoughts, feelings, opinions, wants and needs are also important to others ( $r = .749$ ). In this way, perceptions of social support is akin to believing that one can get one's needs met and that others can assist in this process

### **Fear of Compassion**

Fear of compassion can stem from both fear of self-compassion and fear of compassion from others. Over the last decade, research has been mounting concerning the effects of compassion on psychological health. However, there has been limited research on people who fear compassion. Below I will review those studies that are now in the extant literature.

**Fear of Self-Compassion.** People from low affection, neglecting or abusive family backgrounds are likely to experience the fear of self-compassion (Bowlby, 1980; Gilbert et al., 2011; Mikulincer & Shaver, 2007). They tend to be overly self-critical, which becomes a formidable obstacle to the development of self-compassion. Gilbert and Procter (2006) noticed that among patients with chronic mental health problems, a subgroup became doubtful, frightened, and resistant to the movement towards self-compassion. They also reported that many of these patients reported that they had never deliberated upon the meaning and value of self-compassion (Gilbert et al., 2011).

Pauley and McPherson (2010) interviewed people suffering from depression and anxiety in order to examine the meaning and experience of self-compassion. Their findings indicated that participants positively perceived self-compassion as meaningful

and as helpful in decreasing their depression and anxiety, but they felt that developing self-compassion was difficult because of the negative effects of their depression or anxiety on their ability to be kind towards themselves and their struggles (Pauley & McPherson, 2010). The researchers asserted that clinicians need to consider these conflicting perspectives of developing self-compassion (seeing self-compassion helpful vs. having difficulty in adopting it) in order to make interventions aimed at increasing self-compassion more effective.

This same suggestion has been made by other researchers. Longe et al. (2010) used a functional magnetic resonance imaging (fMRI) method to investigate the neurophysiology of self-criticism and self-compassion. They found that self-criticism was associated with the areas in the brain that recognize error, process resolutions, and inhibit behaviors, while self-assurance was related to areas in the brain that were activated when compassion and empathy were received. In addition, they reported that people who were overly self-critical showed left dorsolateral prefrontal cortex activity related to detection and resolution of errors. This was interpreted as these participants not only were struggling with engaging in self-reassuring behaviors, but they also showed responses related to error processing and behavioral inhibition even when attempting to be self-compassionate.

Gilbert and colleagues (2011) recently developed a measure of fear of compassion and found that self-criticism was strongly associated with fear of self-compassion and



fear of compassion from others. They also reported that the fear of self-compassion and the fear of compassion from others were both related to depression, and that fear of self-compassion was linked to the fear of compassion from others, suggesting that these constructs are not totally independent. Their findings also suggested that the absence of compassion is different than the fear of compassion. Hence, additional attention might need to be paid to studying the fear of compassion because for some people, fear of compassion can be an obstacle to feeling compassion from self and others even if they want to receive compassion and they are given an opportunity to develop self-compassion and know that others are compassionate toward them.

**Fear of Compassion from Others.** Rockliff, Gilbert, McEwan, Lightman, and Glover (2008) pioneered research on the fear of compassion construct. They investigated the fear of compassion between people who were more highly self-critical and those who were less self-critical using imagery and measured heart-rate variability. Participants' instructions were to imagine receiving compassion from an external source (human or non-human). Participants who were higher in self-criticism had lesser heart-rate variability than people who were lower in self-criticism. Researchers interpreted this to mean that more highly self-critical people perceived compassionate behavior as a threat, while people with less self-critical behavior perceived compassion as soothing. People who were more self-critical were afraid of feeling warmth from others because

compassion being directed toward them highlighted their inner loneliness and memories of childhood yearning for unrealized relationships with caregivers (Bowlby, 1980).

Furthermore, people who were highly self-critical have difficulty in receiving compassion from others because they are eager to avoid criticism from others (Zuroff & Fitzpatrick, 1995). If someone tries to validate their feelings and to support them when they fail, they might mistrust what the person intends to say and reject his or her attempts to provide support. Although research has consistently shown that social support is positively related to emotional well-being (e.g., Dixon & Kurpius, 2008), these people are not able to benefit from social support because they are not able to accept other people's support (Raue-Bogdan et al., 2011; Rayle, 2006). They continue to justify to themselves about why they have difficulty in receiving compassion because they are afraid that if they do not keep up their guard, they cannot protect themselves from possible criticisms from others. The fear of criticism from others makes it difficult for them to accept others' support and kindness. Unfortunately, rejecting other people's support makes them feel lonelier and more isolated, which causes them to be more self-critical. It is a vicious cycle; they try to get approval from others and to be accepted by others, but they cannot receive what they desperately want due to their fear of compassion.

## **Relationships among the Study Variables**

**The Relationship between Self-Criticism and Depressive Symptoms.** Research has shown that self-criticism is linked to depression (Blatt & Homann, 1992; Cantazaro & Wei, 2010). People who are overly self-critical are more prone to depression. Additionally, depressed people show a tendency to criticize themselves over things for which they are not even responsible. Traditionally, cognitive behavioral therapists have devoted their efforts to modifying patients' cognitive distortion in order to relieve their depressive symptoms. Therefore, although self-criticism is closely related to depressive symptoms, it is expected that the relationship between self-criticism and depressive symptoms can be mediated or moderated by other factors.

**The Relationship between Self-Criticism and Fear of Compassion from Self and Others.** There is empirical evidence that self-criticism is highly related to fear of compassion, not just from self, but also from others (Gilbert et al., 2011). Self-critical people believe that they do not deserve compassion. They think that receiving compassion from self or others makes them vulnerable to criticism from others. In addition, people who are frightened of receiving compassion are likely to feel lonely and isolated, and not believe that they have the resources to cope with difficulties. This could lead them to be more critical of themselves.

**The Relationship between Self-Criticism and Self-Compassion.** Self-criticism is negatively linked to self-compassion (Gilbert et al., 2011; Neff, 2003b). Self-critical

people have great difficulty in being compassionate with themselves when they fail or make mistakes (Gilbert & Procter, 2006; Pauley & McPherson, 2010) while those who are less self-critical maintain the positive attitudes of being kind and understanding toward themselves (Neff, 2003a). There is also evidence that developing self-compassion is effective in reducing self-criticism. For example, interventions designed to promote self-compassion (e.g., the gestalt two-chair technique, ACT, MBCT, and CFT) have also been shown to reduce self-criticism (Gilbert, 2005, 2010; Hayes, Strosahl, & Wilson, 1999; Segal, Williams, & Teasdale, 2002; Whelton & Greenberg, 2005). Therefore, it is plausible to assume that self-criticism and self-compassion have a significant effect on each other.

**The Relationship between Self-Criticism and Social Support.** Self-critical people may not believe that other people truly care about them, and be hesitant to seek support or be likely to continuously seek reassurance from others (Bowlby, 1969, 1973, 1980; Cantazaro & Shahr, 2000). Regardless of under- or over-utilizing social support from others, self-critical people may have less satisfaction when receiving compassion from others because of their inability to accept social support. They might doubt others' sincerity to empathize with their pain and struggles or they may underestimate the effects of receiving support. Based on Bowlby's attachment theory, Blatt and Homann (1992) also suggested that especially for people with insecure attachment styles, self-criticism is

negatively associated with the perception that they matter to others and others care about them.

**The Relationship between Fear of Compassion from Self and Others and Self-Compassion.** Researchers reported that self-compassion has a negative relationship with fear of compassion (Gilbert et al., 2011). That is, people afraid of being treated compassionately are not able to be kind towards themselves, to perceive their struggles as common human experiences, or to be mindful of their emotions. Conversely, people who treat themselves with empathy are not afraid to provide understanding for themselves and ask for support from others. Therefore, the fear of compassion seems to be negatively related to self-compassion.

**The Relationship between Fear of Compassion from Self and Others and Social Support.** There is no study which directly examines the relationship between fear of compassion and social support although researchers have acknowledged the importance of reductions in fear of compassion for mental health and well-being (Jazaieri et al., 2012). Gilbert and colleagues (2010) suggested that overly self-critical people may “actively resist engaging in compassionate experience or behaviors” (p.252). They asserted that just as an insecurely attached individual is not able to obtain beneficial social support because of their fear of relationships (Bowlby, 1969, 1973, 1980), people who are overly self-critical may not be able to obtain social support due to their fear of

self-compassion. Thus, relationships between fear of compassion and social support are likely to be negative.

### **The Relationship between Self-Compassion and Depressive Symptoms.**

Researchers have consistently reported that self-compassion has a negative relationship with depressive symptoms and developing self-compassion is helpful for ameliorating depression (Barnard & Curry, 2011; MacBeth & Gumlet, 2012; Neff, 2003b; Raque-Bogdan et al., 2011). There are also some findings that people with depressive symptoms have difficulty in adopting self-compassion due to the negative impact of depression (Pauley & McPherson, 2010). Given the negative correlation between self-compassion and depressive symptoms, it is reasonable to assume that improving self-compassion would be effective in lowering depressive symptoms.

### **The Relationship between Social Support and Depressive Symptoms.**

Numerous empirical studies have added to the body of evidence regarding the negative relationship between social support and depressive symptoms (Cohen & Hoberman, 1983; Compas, Wagner, Slavin, & Vannatta, 1986; Dixon & Kurpius, 2008; Hefner & Eisenberg, 2009; Rayle & Chung, 2007). Specifically, according to the stress-buffering model (Windle, 1992), it is suggested that social support buffers the effects of stress on depressive symptoms. For example, Compas and other researchers (1986) examined the relationship between perceived social support and psychological symptoms at three times in a sample of older adolescents entering a university. What they found was a significant

relationship between Time 1 social support and Time 2 psychological symptoms, when Time 1 symptoms were controlled for although Time 1 symptoms were not significantly associated with Time 2 social support. In addition, Time 2 symptoms and Time 3 social support was not significantly related, after Time 2 social support was controlled for. Therefore, based on the findings, it is assumed that social support could be helpful for decreasing depressive symptoms.

**The Relationship between Self-Compassion and Social Support.** Both self-compassion and social support have been shown to be predictors of well-being (Neely, Schallert, Mohammed, Roberts, & Chen, 2009). However, there are inconsistent results regarding this relationship. Some studies suggest that self-compassion and social support are not related to each other while other research results indicate that two variables are somewhat correlated. For example, Allen and Leary (2010) indicated that self-compassion is not associated with seeking social support from others. However, some researchers found that self-compassion is related to being receptive to empathy. These researchers specifically found that people who are highly self-compassionate believe that others do attend to, rely on, and care about them (Raque-Bogdan, Ericson, Jackson, Martin, & Bryan, 2011). Therefore, given these mixed results, more research is needed to clarify the relationship between self-compassion and social support.

### **Critique of Previous Literature**

There is consistent evidence that self-compassion has beneficial effects on mental health. Developing kindness towards oneself, being mindful about one's moods, and perceiving struggles as common human experiences could be helpful to improve depressive symptoms, especially for people who are self-critical. However, some people who severely criticize themselves have difficulty in developing self-compassion due to their fear of receiving compassion from others and even from themselves.

In addition, benefits of receiving social support on psychological well-being are well-supported. However, there is a group of people who reject receiving empathy and compassion from others because they do feel that others are interested in their wellness and they are afraid that it may put them at risk of trusting others, relying on others, and being vulnerable to others. Without understanding their fear of receiving compassion, if they are asked to develop self-compassion or seek help from others, it might make them more frustrated because of their difficulty in receiving compassion. However, research on fear of compassion is relatively rare, compared to the attention devoted to the effects of self-compassion and social support on mental health.

Rayle (2006) emphasized the importance of mattering to one another by giving and receiving in interpersonal relationships, especially in counseling relationships. However, highly self-critical people are less likely to seek help for themselves although highly self-critical people are more prone to depressive symptoms (Blatt & Homann, 1992; Cantazaro & Wei, 2010). Even if they go to counseling, their fear of asking for



support and adopting self-compassion might be a hindrance in opening up themselves, accepting empathy from counselors, and establishing trust in therapy. As a result, if clients are not able to experience feelings of care, compassion, and understanding from counselors or are not able to develop self-compassion, the effects of therapy will be limited (Gilbert et al., 2011).

In order to understand the fear of receiving compassion, it would be helpful to examine the relationship between fear of receiving compassion and different variables. To date, however, there is a lack of studies that specify how the fear of compassion is connected to other variables such as self-criticism, self-compassion, social support, and measures of psychological health in a comprehensive model. Gilbert and other researchers (2011) developed the Fears of Compassion Scales and collected data from college students and therapists to explore the relationship between fear of compassion and depression. Gilbert and colleagues identified that fear of compassion was negatively associated with self-compassion and secure attachment style, but positively associated with self-criticism, anxious attachment, avoidant attachment, depression, anxiety, and stress in their college student sample. They also found that fear of compassion was negatively related to self-compassion and secure attachment, but positively related to self-criticism, anxious attachment style, depression, and stress in their sample of therapists. They performed a multiple regression analysis to examine the relationship between depression and some of their study variables, including fear of compassion, self-

compassion and self-criticism, and found that these variables accounted for 38% of the variance in depression. They also discovered that self-criticism was the strongest predictor of depression. However, they did not specify how these predictors could be related to each other in addition to the strong relationship between self-criticism and depressive symptoms although they discussed the possibility that fear of compassion could influence self-critics' difficulty in developing self-compassion. In another study conducted by Gilbert and other researchers (2012), they also found that fear of compassion was closely linked to self-criticism, difficulty describing and identifying feelings, depression, anxiety, and stress. They reported that fear of compassion was negatively correlated with feeling safe and non-judging. In both studies, however, they mainly investigated and reported the simple correlation between two variables. Even though they used multiple regressions to identify the relationship between predictors and an outcome variable, again they were not able to provide information about how these variables are related to each other.

Depression is one of the most prevalent problems in college. College students who are overly self-critical are prone to depressive symptoms. Therefore, it could be beneficial for self-critical students to be more able to be self-compassionate and accept others' support in the face of adversity. Again, without understanding the roles of fear of compassion, however, it would be challenging for those who are self-critical to develop self-compassion and accept good quality social support. Given the paucity of research on

the relationships among self-criticism, fear of compassion from self and others, self-compassion, social support, and depressive symptoms in the counseling literature, future research on the subject can assist researchers in investigating these relationships. It also can aid counselors in developing ideas to build a more solid working alliance with people who are overly self-critical and to help them become more kind toward themselves, to be more aware of their propensity to criticize themselves and thus to reverse this self-critical behavior, and to feel more connected to others.

### **Present Study**

Depression is one of the most common mental health problems among college students. Attending college is a big life transition and it can be stressful to deal with constant demands for adjustment and change (Dixon & Kurpius, 2008). Although many students are able to cope successfully with academic demands, changes, and adjustments, some students have difficulties in dealing with the challenges. Experiencing social and academic difficulties could make students prone to depressive symptoms, which could become a significant obstacle on their path to success in college.

Students who are overly self-critical are vulnerable to the development of depressive symptoms (e.g., Cantazaro & Wei, 2010). Self-critical people tend to feel inadequate, unworthy, or inferior because of their relentless and ruthless self-scrutiny (Blatt & Homann, 1992). Whelton and Greenberg (2005) found that people who are overly self-critical feel more contempt and disgust for themselves than do people who are

less self-critical. They indicated that self-critics' negative cognitions and emotions of contempt, anger, and disgust for themselves are likely to lead to depression.

Moreover, self-criticism may be supported by the fear that overly self-critical people have of receiving compassion either from themselves or from others (e.g., Gilbert, McEwan, Matos, & Ravis, 2011); and, their fear of compassion may actually be supporting the link between self-criticism and depressive symptoms. Researchers (Gilbert et al., 2011) suggest that fear of compassion plays a critical role in the relationships between self-criticism and difficulty in receiving compassion from self and/or others. However, there is a paucity of research on fear of compassion, so that at this time, the nature and magnitude of these relationships have yet to be explored. Since fear of compassion could make it challenging for self-critical people to adopt self-compassion and believe that others care about them, it is important to have a better understanding of their fear of compassion.

Finally, counseling with college students in order to help them develop self-compassion may change these relationships in ways that are beneficial in alleviating depressive symptoms. Both theorists and researchers have suggested that the ways in which people treat themselves in the midst of pain and failure could have a great influence on their adjustment to difficult situations (Wei, Liao, Ku, & Shaffer, 2011). There has been consistent evidence that self-compassion is helpful in alleviating depressive symptoms (Barnard & Curry, 2011; MacBeth & Gumlet, 2012; Neff, 2003b;

Raque-Bogdan et al., 2011). Neff (2003a, 2003b) defined the construct of self-compassion as being kind toward oneself, perceiving one's experience in the context of larger human experience, and nonjudgmentally acknowledging one's own painful thoughts and feelings. Therefore, when college students experience difficulties or challenges, whether or not they approach their own pain and failure with empathy could influence whether or not they develop depressive symptoms.

Along with self-compassion, the positive effects of social support on college students' mental health have also been demonstrated through numerous research studies (e.g., Allgöwer, Wardle, & Steptoe, 2001; Cohen & Hoberman, 1983; Compas, Wagner, Slavin, & Vannatta, 1986; Dixon & Kurpius, 2008; Hefner & Eisenberg, 2009; Rayle & Chung, 2007). For example, Cohen and Hoberman (1983) asserted that the perceived availability of social support is a buffer against stressful events and it moderates the relationship between the negative effects of stress and depression in college students. Thus, perceived social support could reduce adverse effects of stress on college students' mental health.

Therefore, based on theory and the extant research that exists in this area, I have designed a study that can help us understand how self-criticism, fear of compassion from self and others, self-compassion, perceptions of social support, and depressive symptoms are connected to one another in a comprehensive model, named the Self-Criticism/Compassion Mediation Model (see Figure 1). The current study investigated

the mediating roles of fear of compassion from self and others, self-compassion, and perceptions of social support in the relationship between self-compassion and depressive symptoms. Specifically, in the model, three-path mediated effects (Taylor, MacKinnon, & Tein, 2007) of fear of compassion, self-compassion and perceptions of social support are hypothesized to mediate the relationship between self-criticism and depressive symptoms. More specifically, fear of compassion and self-compassion are hypothesized to intervene between self-criticism and depressive symptoms in a series and fear of compassion and perceptions of social support are hypothesized to serially mediate the relationship between self-criticism and depressive symptoms, as well. Two-path mediated effects of fear of compassion from self and others, self-compassion, and social support will be explored, as well. To test these relationships, I used Structural Equation Modeling (SEM), with Maximum Likelihood Estimation, which allows researchers to simultaneously evaluate the relationships among latent constructs with multiple indicators.

Figure 1. Hypothesized Model: The Self-Criticism/Compassion Mediation Model

## **Chapter 3**

### **Methodology**

#### **Design**

This study used a non-experimental, cross-sectional, correlational research design.

#### **Participants and Sampling Procedure**

Two hundred six university students at a large midwestern state university in the United States were participants in the current study. They were recruited through student email lists, psychology classes, and flyers on campus. There were 38 (18.4%) men and 168 (81.6%) women, with ages ranging from 17 to 52 years ( $M = 21.42$  years;  $SD = 4.13$ ). The unequal sample sizes of men and women would be caused because most of the participants were from the college of liberal arts and the college of education and human development where women are the majority. There were 37 (18.0%) freshmen, 43 (20.9%) sophomores, 62 (30.1%) juniors, and 64 (31.1%) seniors. With regard to ethnicity, the majority of participants were 174 (84.5%) European Americans, followed by 14 (6.8%) Asian Americans, eight (3.9%) multiracial Americans, four (1.9%) African Americans, four (1.9%) international students, and two (1.0%) Hispanic Americans.

#### **Measures**

**Self-Criticism.** The Levels of Self-Criticism scale (LOSC; Thompson & Zuroff, 2004) was used to assess self-criticism. The LOSC is a 22-item measure using a 7-point Likert-type scale ranging from 1 (not at all) to 7 (very well). The LOSC consists of two



subscales: 12 items for Comparative Self-Criticism (CSC) and 10 items for Internalized Self-Criticism (ISC). Thompson and Zuroff (2004) defined CSC as a negative view of the self in comparison with others, and ISC as a negative view of the self in comparison with their own internal standards. Higher scores of LOSC indicate a higher level of self-criticism. Sample items are “I am very irritable when I have failed” (ISC), and “I have a nagging sense of inferiority” (CSC). Adequate reliability has been reported for the LOSC, with coefficient alphas ranging from .81 to .84 for CSC, and .87 to .88 for ISC in samples of college students. Significant correlations have been found between self-criticism as measured by the LOSC and self-criticism as measured by the Self-Criticism subscale of the Depressive Experiences Questionnaire (Blatt, D’Afflitti, & Quinlan, 1976) ( $r = .62$  for CSC and  $r = .55$  for ISC). In the current study, coefficient alphas were .81 for CSC and .89 for ISC, and .90 for overall LOSC. CSC and ISC were used as observed variables for the latent variable, self-criticism.

**Depressive Symptoms.** The Self-Rating Depression Scale (SDS; Zung, 1965) was used to measure depressive symptoms. The SDS Scale is a 20-item measure using a 4-point Likert-type scale ranging from 1 (some or a little of the time) to 4 (most or all of the time). The range of possible raw scores is from 20 to 80. Higher scores indicate greater depressive symptoms. Zung (1965) reported that a cut-off score of 50 or greater is regarded as clinical depression. Convergent validity has been reported through significant correlations with other established measures of depression in a sample of patients with

depressive disorder (Zung, 1965). Internal consistency for the SDS was .84 in a sample of college students (Cantazaro & Wei, 2010). In this study, the coefficient alpha was .86.

Regarding the factor structure of the SDS, different factor structures emerged from several studies, and the characteristics and the sizes of the samples in these studies were very varied (Kitamura, Hirano, Chen, & Hirata, 2004). However, in consideration of Zung's (1965) original proposal of the three domains (affective, cognitive, and somatic) and Kitamura and colleagues' (2004) study result using a large sample of college students ( $N = 28,588$ ), the items 2, 4, 7, 8, and 20 were excluded to create three domains. The other items were combined and divided into three domains: items 1, 3, 9, 10, 13, 15, and 19 were used to create the Affective factor; items 5, 6, and 12 were used to create the Somatic factor; and items 14, 16, 17, and 18 were used to create the Cognitive factor. The items 5, 6, 12, 14, 16, 17 and 18 were worded positively, so the scores of the items were reversed before creating the domains. These domains were used as observed variables for the latent variable, depression in this study.

**Self-Compassion.** The 26-item Self-Compassion Scale (SCS; Neff, 2003b) was utilized to assess self-compassion. Responses were measured on a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always). The SCS has six subscales: Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-Identification. Sample items are "I try to be loving towards myself when I'm feeling emotional pain" (Self-Kindness), "When I see aspects of myself that I don't like, I get

down on myself” (Self-Judgment), “When things are going badly for me, I see the difficulties as part of life that everyone goes through” (Common Humanity), “When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world” (Isolation), “When something upsets me I try to keep my emotions in balance” (Mindfulness), and “When I’m feeling down I tend to obsess and fixate on everything that’s wrong” (Over-Identification). Neff (2003b) demonstrated convergent and discriminant validity for the SCS. Test-retest reliability for the SCS was also reported as .93 over 3 weeks (Neff, 2003b). Internal consistency for the overall SCS has ranged from .92 to .94 in undergraduate student samples (Neff, 2003b; Neff, Hsieh, & Dejitterat, 2005). In relation to the six subscales, internal consistency reliability was .78 for the Self-Kindness subscale, .77 for the Self-Judgment subscale, .80 for the Common Humanity subscale, .79 for the Isolation subscale, .75 for the Mindfulness subscale, and .81 for the Over-identification subscale. The coefficient alphas in this study were .92 for the overall SCS, .81 for the Self-Kindness subscale, .82 for the Self-Judgment subscale, .75 for the Common Humanity subscale, .78 for the Isolation subscale, .78 for the Mindfulness subscale, and .77 for the Over-identification subscale.

Neff (2003a) originally proposed that self-compassion has three main components: self-kindness versus self-judgment component, common humanity versus isolation component, and mindfulness versus over-identification component. However, in Neff’s (2003b) study each component was found to have a two-factor model and for the

overall SCS, the six-factor model fitted the data well (NNFI = .90; CFI = .91) (Neff, Kirkpatrick, & Rude, 2007), but in the current study the six-factor model had a poor fit to the data (NFI = .734, TLI = .804, CFI = .823, RMSEA = .082 [90% CI = .075, .090]). Therefore, instead of using the six observed variables for the self-compassion latent variable, following Neff's (2003a) original definition of self-compassion with three main components, the summed scores on the Self-Kindness items and the reverse coded Self-Judgment items, the summed scores on the Common Humanity and the reverse coded Isolation items, and the summed scores on the Mindfulness and the reverse coded Over-identification items were used as three observed variables.

**Perceived Social Support.** Social support was conceived of as perceiving that one matters to others and that one is important to them. Thus, for the purposes of this study, the feeling that one is important to others dimension of perceptions of social support was measured using the 10-item Importance subscale of the Mattering Instrument was used to assess participants' perceptions of social support (Elliott, Kao, & Grant, 2004). A sample items for this subscale is "People do not care what happens to me" (scored in the negative direction). Each item in the subscale uses a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Elliott et al. demonstrated the Mattering Scale's construct, content, and internal and external discriminant validity. Internal consistency for the Importance subscale has ranged from .79 to .86 in samples of college students (Elliott et al., 2004; Raque-Bogdan et al., 2011). In this study, the

coefficient alpha was .83. The three parcels of items were created from 10 items of the Importance subscale and included as observed variables for the latent variable, social support.

**Fear of Compassion from Self and Others.** Fear of compassion from self and others was measured using Fears of Compassion Scales (Gilbert et al., 2011). The items of the scale were derived from the researchers' clinical experiences and literature (e.g., Arieti & Bemporad, 1980; Bowlby, 1969, 1973, 1980). The scale originally includes three subscales: Fear of Compassion for Self, Fear of Compassion from Others, and Fear of Compassion for Others. For the current study, however, only Fear of Compassion for Self and Fear of Compassion from Others subscales were used because one of the main focuses of the study was on the fear of receiving compassion from self and others. The Fear of Compassion for Self subscale consists of 17 items and the Fear of Compassion from Others consisted of 15 items. The sample items are "I try to keep my distance from others even if I know they are kind" (Fear of Compassion from Others) and "I worry that if I start to develop compassion for myself I will become dependent on it" (Fear of Compassion for Self). The items use a 5-point Likert scale ranging from 1 (don't agree at all) to 5 (completely agree). Gilbert and colleagues (2011) reported that Cronbach's alphas for Fear of Compassion for Self were .85 - .92 and Cronbach's alphas for Fear of Compassion from Others were .85 - .87 in samples of college students and counselors. In this study, the coefficient alphas were .91 for Fear of Compassion from Others, .95 for

Fear of Compassion for Self and .96 for both subscales. Fear of Compassion from Others and Fear of Compassion for Self subscales were used as observed variables for the latent variable, fear of compassion.

### **Data Analysis**

Structural Equation Modeling (SEM) was used to test the fit of the data to the model. Regarding sample size, SEM in general requires a large sample size. Stevens' (2002) recommendation is to have at least 15 cases per each measured indicator (in this case 15 cases x 13 measured indicator = 195). Therefore, it was ensured that the current study has the adequate sample size for conducting SEM ( $N = 206$ ). The Chi-Square value is traditionally used as a test for goodness of fit (Hu & Bentler, 1999). However, researchers have noted the severe limitations of using Chi-Square value to evaluate overall model fit (e.g., its sensitivity to sample size) (Bentler & Bonnet, 1980). Thus, alternative indices are recommended to assess model fit. For instance, Root Mean Square Error of Approximation (RMSEA) was used as an absolute fit index which determines how well a model fits the data in comparison with no model at all (Jöreskog, & Sörbom, 1993). In addition, based on McDonald and Ho's (2002) findings, the most commonly reported fit indices including Comparative Fit Index (CFI), Normed Fit Index (NFI) and Tucker Lewis Index (TLI) or Non-Normed Fit Index (NNFI), were used to test overall model fit. An RMSEA in the range of 0.05 to 0.10 is considered a fair fit and values greater than 0.10 indicate a poor fit (MacCallum, Browne, & Sugawara, 1996). Values

greater than 0.90 for CFI and NFI indicate a good fit (Bentler & Bonnet, 1980; Hu & Bentler, 1999). For TLI, Hu and Bentler suggested values greater than .95. Analyses were performed using SPSS 21.0 and Amos 21.0.

## Chapter 4

### Results

#### Preliminary Analyses

Before conducting further analyses, any possible gender difference was examined using an analysis of variance (ANOVA). Despite unbalanced data regarding gender, Levene test statistics for homogeneity of variance were not significant at the .05 level, indicating there were no serious violations of the homogeneity of variance assumption: self-criticism,  $p = .645$ , fear of compassion from self and others,  $p = .123$ , self-compassion,  $p = .065$ , perceptions of social support,  $p = .983$ , and depressive symptoms,  $p = .471$ . There was no significant difference between men and women for self-criticism,  $F(1, 204) = .151$ ,  $p = .698$ , fear of compassion,  $F(1, 204) = 1.892$ ,  $p = .171$ , self-compassion,  $F(1, 204) = .021$ ,  $p = .885$ , perceptions of social support,  $F(1, 204) = .289$ ,  $p = .591$ , and depressive symptoms,  $F(1, 204) = .775$ ,  $p = .380$ . In addition, using an ANOVA, I found that there was no group difference by year of college: self-criticism,  $F(3, 202) = 1.067$ ,  $p = .364$ , fear of compassion,  $F(3, 202) = .797$ ,  $p = .497$ , self-compassion,  $F(3, 202) = .729$ ,  $p = .536$ , perceptions of social support,  $F(3, 202) = .121$ ,  $p = .948$ , or depressive symptoms,  $F(3, 202) = .888$ ,  $p = .448$ . Again, despite unequal sample sizes across ethnic groups, Levene tests indicated the homogeneity of variance assumption was not violated: self-criticism,  $p = .140$ , fear of compassion from self and



others,  $p = .249$ , self-compassion,  $p = .286$ , perceptions of social support,  $p = .980$ , and depressive symptoms,  $p = .103$ . There were no significant differences across different ethnic groups for self-criticism,  $F(5, 200) = 1.081$ ,  $p = .372$ , fear of compassion,  $F(5, 200) = .523$ ,  $p = .759$ , self-compassion,  $F(5, 200) = 1.407$ ,  $p = .223$ , perceptions of social support,  $F(5, 200) = .957$ ,  $p = .445$ , and depressive symptoms,  $F(5, 200) = 1.222$ ,  $p = .300$ .

The results of descriptive statistics and Pearson correlation coefficients among the variables, including the subscales of the variables, are presented in Table 1. All study variables were significantly associated with one another. Self-criticism had a strong negative relationship with perceptions of social support ( $r = -.412$ ,  $p = .000$ ) and self-compassion ( $r = -.771$ ,  $p = .000$ ), and a strong positive relationship with fear of compassion from self and others ( $r = .665$ ,  $p = .000$ ) and depressive symptoms ( $r = .597$ ,  $p = .000$ ). Fear of compassion from self and others was negatively related to perceptions of social support ( $r = -.630$ ,  $p = .000$ ) and self-compassion ( $r = -.614$ ,  $p = .000$ ), but positively associated with depressive symptoms ( $r = .609$ ,  $p = .000$ ). Self-compassion and perceptions of social support had a positive relationship with each other ( $r = .414$ ,  $p = .000$ ) while depressive symptoms was negatively associated with perceptions of social support ( $r = -.516$ ,  $p = .000$ ), and with self-compassion ( $r = -.644$ ,  $p = .000$ ).

## Measurement Model

Anderson and Gerbing (1988) provided guidance for using structural equation modeling (SEM), and recommended that prior to assessing model fit, a confirmatory factor analysis (CFA) of the underlying measurement model specifying relationships among all observed to latent variables be conducted. They contended that this evaluation would provide evidence of both convergent and discriminant validity of the hypothesized constructs comprising the model (Campbell & Fiske, 1959).

Cole (1987) indicated that CFA can test discriminant validity by examining how the hypothesized latent variables are interrelated, and convergent validity by estimating the loadings of indicators on the corresponding latent variable. He also asserted that other approaches to test construct validity, including zero-order correlation, partial correlation, analysis of variance, and exploratory factor analysis, have possible problems related to correlated errors, but CFA is preferred to specify correlated errors.

An analysis of the measurement model, presented in Figure 2, revealed that the model fit the data adequately,  $\chi^2 (55, N = 206) = 130.878, p = .000$ , CFI = .963, NFI = .938, TLI = .947, RMSEA = .082 [90% CI = .064, .100] with CFI and NFI > .9 indicating a good fit and TLI > .9 and .05 < RMSEA < .10 indicating an acceptable fit (e.g., Bentler & Bonnet, 1980; Hu & Bentler, 1999; MacCallum, Browne, & Sugawara, 1996). All the loadings of the observed variables on the latent variables ( $\beta = .596$  to 1.021) were statistically significant (all p values were less than .001), which suggests that all the

indicators adequately measured respective latent variables. The standardized regression coefficients between the latent variables and their indicators are presented in Figure 2.

### **Structural Model**

I proposed to investigate the mediated effects of fear of compassion from self and others, self-compassion, and perceptions of social support on the relationship between self-criticism and depressive symptoms. Following Anderson and Gerbing's (1988) suggestion, a two-step modeling approach was employed to compare a series of nested models and conduct sequential chi-square difference tests. A structural model only with the three-path mediated effects of fear of compassion, self-compassion, and perceptions of social support was tested first, and then a path between the variables was subsequently added to evaluate the hypothesized model and compare it with a series of nested models.

In addition, bootstrap methods were also used to examine mediation chains. Cook and Campbell (1979) called a mediation chain longer than two paths the micromediation chain (Taylor, MacKinnon, & Tein, 2007). Taylor and colleagues indicated that several methods for evaluating single-mediator effects have been proposed and studied (e.g., Baron & Kenny, 1986; Shrout & Bolger, 2002; Sobel, 1982), but there has been less research conducted on longer mediational chains. These researchers introduced and compared different methods to evaluate a three-path mediated effect (two mediators in series) by extending a two-path mediated effect (single mediator). They indicated that in comparison to causal steps tests, product-of-coefficients tests, and

difference-in-coefficients tests, resampling methods such as bootstrapping are preferred to obtain confidence intervals for the mediated effect.

First, the structural model with only the three-path mediated effects provided a good fit to the data,  $\chi^2 (60, N = 206) = 150.283, p = .000, CFI = .956, NFI = .929, TLI = .942, RMSEA = .086$  [90% CI = .069, .103] (see Figure 3). In addition, all the paths were statistically significant: the path from self-criticism to fear of compassion,  $\beta = .773, p < .001$ , the path from fear of compassion to self-compassion,  $\beta = -.720, p < .001$ , the path from fear of compassion to perceptions of social support,  $\beta = -.780, p < .001$ , the path from self-compassion to depressive symptoms,  $\beta = -.577, p < .001$ , and the path from perceptions of social support to depressive symptoms,  $\beta = -.420, p < .001$ . That is, the three-path mediated effects passing through fear of compassion and self-compassion, and through fear of compassion and perceptions of social support were significant on the relationship between self-criticism and depressive symptoms.

Then, the path between self-criticism and depressive symptoms was added (see Figure 4) to examine the direct effect of self-criticism and depressive symptoms with the three-path mediated effects of the mediators. The model with the direct effect of self-criticism on depressive symptoms fit the data well,  $\chi^2 (59, N = 206) = 142.612, p = .000, CFI = .959, NFI = .933, TLI = .946, RMSEA = .083$  [90% CI = .066, .101]. This model provided a better fit than the fully mediated model with three-path mediated effects. A chi-square difference test was conducted to compare this partial mediation model with the

full mediation model. The difference between the chi-square statistic was statistically significant,  $\Delta\chi^2 (1, N = 206) = 7.671, p < .01$ . That is, the added direct path between self-criticism and depressive symptoms significantly contributed to the model with the three-path mediated effects of fear of compassion from self and others, self-compassion, and perceptions of social support. Also, all the paths were significant again: the path from self-criticism to fear of compassion,  $\beta = .772, p < .001$ , the path from fear of compassion to self-compassion,  $\beta = -.715, p < .001$ , the path from fear of compassion to perceptions of social support,  $\beta = -.769, p < .001$ , the path from self-compassion to depressive symptoms,  $\beta = -.483, p < .001$ , the path from perceptions of social support to depressive symptoms,  $\beta = -.334, p < .001$  and the path from self-criticism to depressive symptoms,  $\beta = .213, p < .01$ .

Next, the path between fear of compassion from self and others, and depressive symptoms was added to the structural model to evaluate the two-path mediated effect of fear of compassion on the relationship between self-criticism and depressive symptoms. This structural model provided an adequate fit to the data,  $\chi^2 (58, N = 206) = 140.521, p = .000$ , CFI = .959, NFI = .934, TLI = .945, RMSEA = .083 [90% CI = .066, .101], but the chi-square difference was not greater than 3.84, the chi-square critical value for  $df = 1$ ,  $\Delta\chi^2 (1, N = 206) = 2.091, p > .05$ .

Then, to examine the two-path mediated effect of perceptions of social support, the direct path from self-criticism to perceptions of social support was added and the

structural model was tested. Although the structural model showed an adequate fit with the data,  $\chi^2 (58, N = 206) = 142.595, p = .000, CFI = .958, NFI = .933, TLI = .944, RMSEA = .084 [90\% CI = .067, .102]$ , the resulting chi-square difference was not significant,  $\Delta\chi^2 (1, N = 206) = .007, p > .05$ , and the direct path between self-criticism and perceptions of social support was not significant,  $\beta = -.013, p > .05$ .

The direct path between self-criticism and self-compassion was added to evaluate the two-path mediated effect of self-compassion. Compared to the other models, this structural model demonstrated the best fit of the data,  $\chi^2 (58, N = 206) = 133.416, p = .000, CFI = .963, NFI = .937, TLI = .950, RMSEA = .080 [90\% CI = .063, .097]$ . In addition, when comparing this model with the partially mediated model with the direct effect from self-criticism to depressive symptoms and two three-path mediated effects, the chi-square difference test indicated that the path between self-criticism and self-compassion significantly contributed to the structural model,  $\Delta\chi^2 (1, N = 206) = 9.196, p < .01$ . As shown in Figure 5, all the structural paths were found to be statistically significant: the path from self-criticism to fear of compassion,  $\beta = .761, p < .001$ , the path from fear of compassion to self-compassion,  $\beta = -.462, p < .001$ , the path from fear of compassion to perceptions of social support,  $\beta = -.769, p < .001$ , the path from self-compassion to depressive symptoms,  $\beta = -.490, p < .001$ , the path from perceptions of social support to depressive symptoms,  $\beta = -.339, p < .001$  the path from self-criticism to depressive symptoms,  $\beta = .199, p < .05$ , and the path from self-criticism to self-

compassion,  $\beta = -.287$ ,  $p < .01$  (see Table 2). That is, there was the significant two-path mediated effect of self-compassion on the relationship between self-criticism and depressive symptoms, along with the three-path mediated effects. Therefore, I judged this final model to be the most accurate representation of the data, and titled this final model, the Self-Criticism/Compassion Mediation Model.

Finally, all the directions of the paths in the Self-Criticism/Compassion Mediation model were reversed to investigate the possibility that these relationships could be interpreted in the reversed directions. However, the Self-Criticism/Compassion Mediation Model was a better fit than the reverse model,  $\chi^2 (58, N = 206) = 136.574$ ,  $p = .000$ , CFI = .961, NFI = .935, TLI = .948, RMSEA = .081 [90% CI = .064, .099].

### **Bootstrap Procedures**

According to Shrout and Bolger's (2002) recommendation, bootstrap procedures were used to test the significance of the mediated effects. Bootstrapping is a statistical procedure for testing the significance of estimates by randomly drawing a large number of bootstrap samples from the original data (Mallinckrodt, Abraham, Wei, & Russell, 2006; Preacher & Hayes, 2004). Compared to other approaches such as the Sobel test and the product of coefficients distribution, bootstrapping has an advantage that it does not rely on the assumption of normality. In addition, it is preferred to obtain confidence intervals (Taylor, MacKinnon, & Tein, 2007).

A total of 1,000 bootstrap samples were created to test the significance of the indirect effects of fear of compassion from self and others, self-compassion, and perceptions of social support. If the 95% confidence intervals for the average estimates do not include zero, a mediated effect is considered statistically significant at the .05 level (Shrout & Bolger, 2002). As shown in Table 3, the bootstrap results indicated that the path from self-criticism to fear of compassion, and the path between fear of compassion and self-compassion were significant,  $\beta = -.352, p < .01$ . The path between self-criticism and fear of compassion, and the path between fear of compassion and perceptions of social support were also significant,  $\beta = -.585, p < .01$ . The bootstrap results supported that the relationship between fear of compassion and depressive symptoms was significantly mediated by self-compassion,  $\beta = .226, p < .01$  and perceptions of social support,  $\beta = .261, p < .01$ . These bootstrap results indicated there were the three-path mediated effects passing through fear of compassion and self-compassion,  $\beta = .172$ , and through fear of compassion and perceptions of social support,  $\beta = .198$ , and the two-path mediated effects through self-compassion,  $\beta = .141$ , on the relationship between self-criticism and depressive symptoms. In sum, the standardized indirect/mediated effects between self-criticism and depressive symptoms were statistically significant through two three-path mediated effects and the two-path mediated effect of self-compassion,  $\beta = .511, p < .01$ .



The summary of model fits of the competing models was presented in Table 4. In the final Self-Criticism/Compassion Mediation Model, the relationship between self-compassion and depressive symptoms was mediated by fear of compassion and self-compassion in a series and fear of compassion and perceptions of social support in a series. In addition, the two-path mediated effect of self-compassion on the relationship between self-criticism and depressive symptoms was also significant.

Table 1. The Descriptive Statistics and Intercorrelations of the Study Variables

	<i>Mean</i>	<i>SD</i>	1	1-1	1-2	2	2-1	2-2	3	3-1	3-2	4	5	5-1	5-2	5-3
1. Self-Criticism	84.36	18.128														
1-1. Internalized Self-Criticism	39.15	10.926	.854***													
1-2. Comparative Self-Criticism	42.00	9.181	.869***	.976***												
2. Fear of Compassion from Self and Others	56.65	19.302	.665***	.701***	.656***											
2-1. Fear of Compassion from Self	28.99	11.300	.606***	.609***	.574***	.950***										
2-2. Fear of Compassion from Others	27.66	9.269	.646***	.717***	.666***	.924***	.759***									
3. Self-Compassion	81.21	19.581	-.771***	-.617***	-.612***	-.614***	-.579***	-.573***								
3-1. Self-Kindness	30.15	8.430	-.726***	-.591***	-.586***	-.632***	-.611***	-.571***	.902***							
3-2. Commons Humanity	25.17	6.487	-.663***	-.553***	-.528***	-.528***	-.506***	-.482***	.888***	.690***						
3-3. Mindfulness	25.90	6.975	-.669***	-.534***	-.518***	-.470***	-.418***	-.470***	.891***	.682***	.730***					
4. Perceptions of Social Support	40.05	5.616	-.412***	-.506***	-.437***	-.630***	-.580***	-.605***	.414***	.393***	.392***	.322***				
5. Depressive Symptoms	38.18	9.382	.597***	.606***	.568***	.609***	.552***	.595***	-.644***	-.551***	-.572***	-.610***	-.516***			
5-1. Affective Factors	11.75	3.540	.506***	.455***	.434***	.525***	.484***	.503***	-.554***	-.453***	-.464***	-.577***	-.382***	.828***		
5-2. Somatic Factors	11.17	3.292	.386***	.396***	.366***	.442***	.404***	.428***	-.442***	-.386***	-.415***	-.389***	-.368***	.829***	.605***	
5-3. Cognitive Factors	15.26	4.388	.577***	.632***	.589***	.547***	.488***	.545***	-.599***	-.523***	-.538***	-.548***	-.520***	.848***	.510***	.535***

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

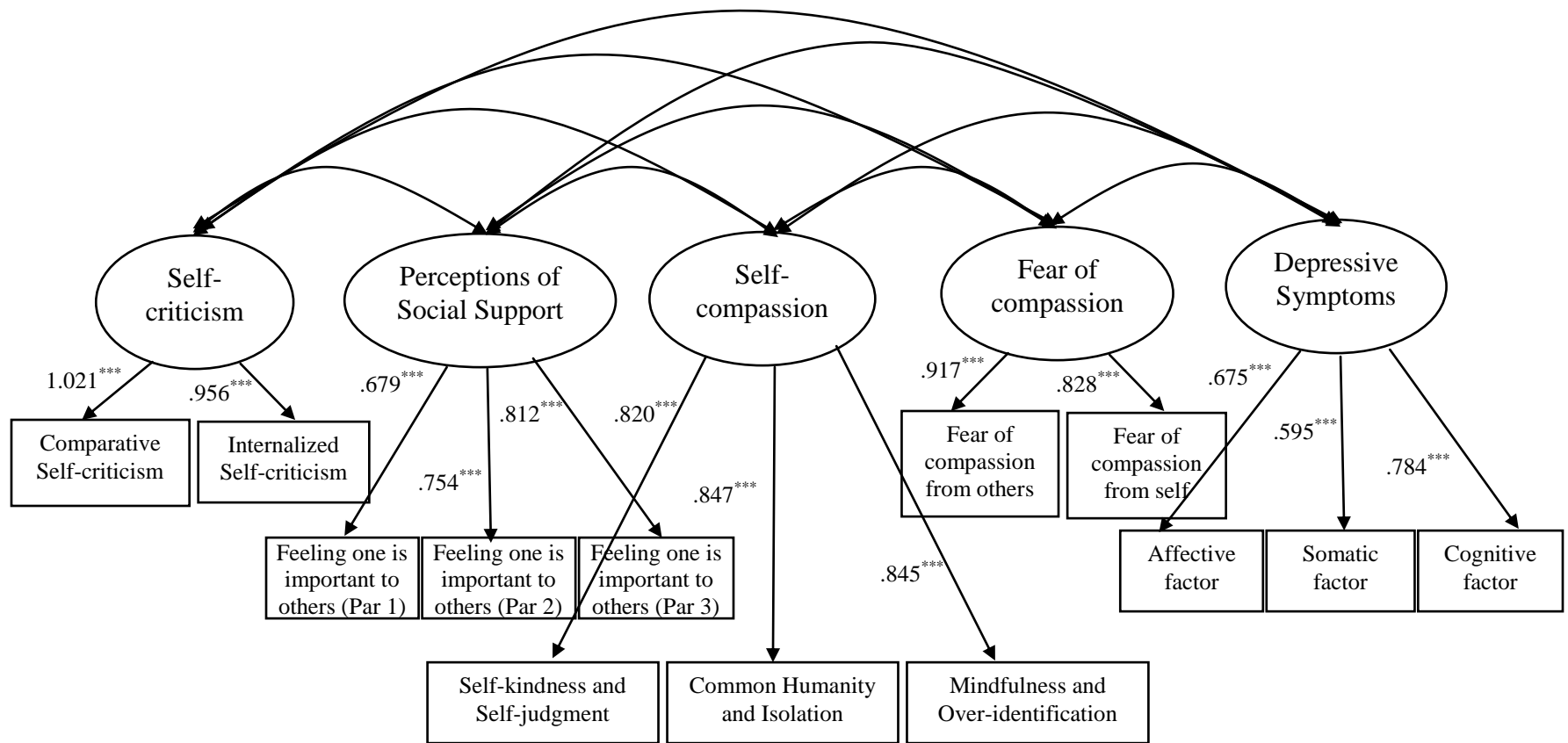


Figure 2. The Measurement Model

Note: Par = Parcel; \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Figure 3. The Full Mediation Model

*Note:* \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .01$ .

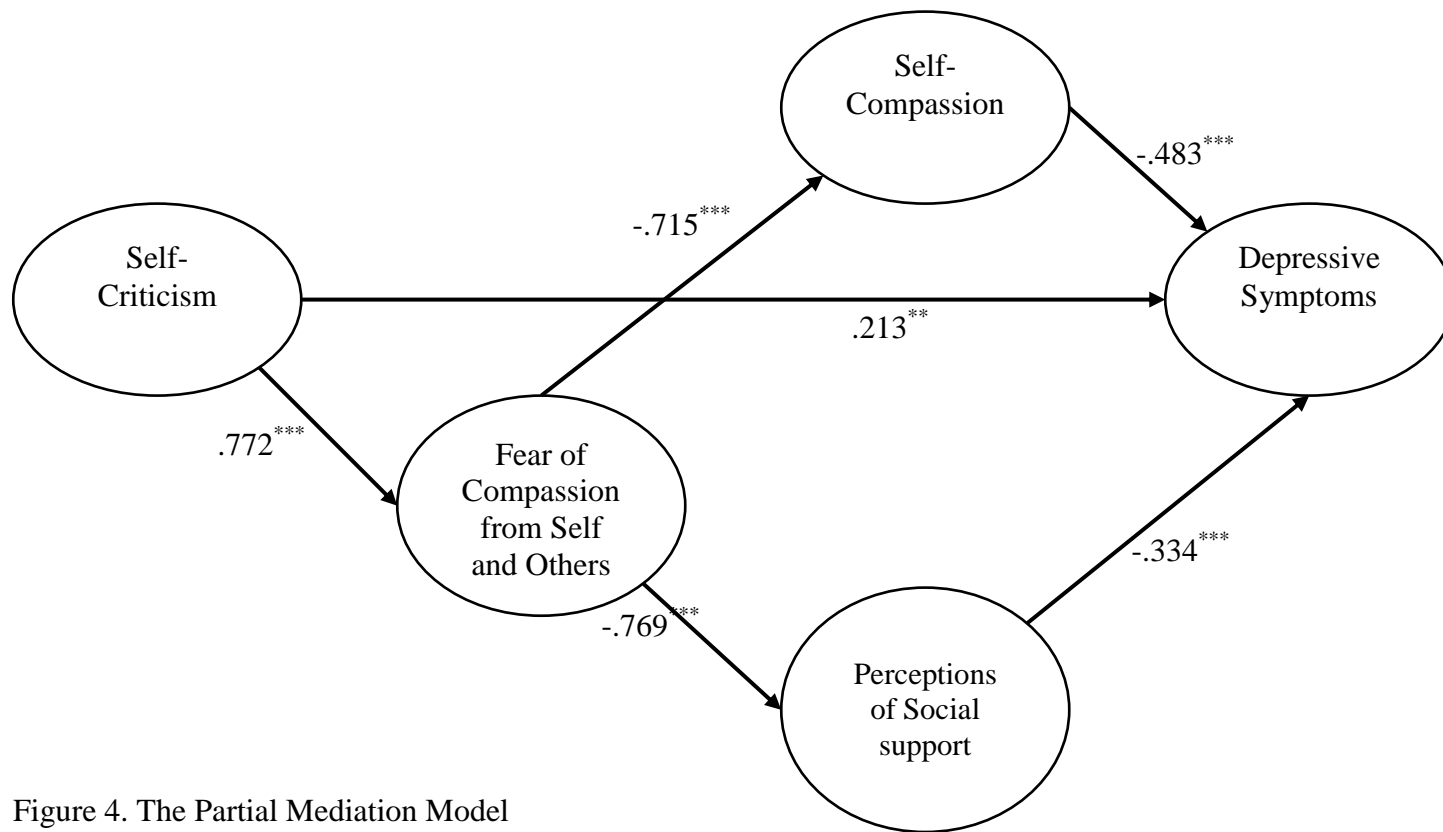


Figure 4. The Partial Mediation Model

Note: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .01$

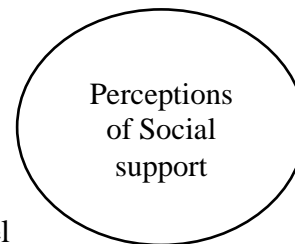


Figure 5. The Self-Criticism/Compassion Mediation Model

*Note:* \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .01$

Table 2. The Statistical Estimates of the Self-Criticism/Compassion Mediation Model

	Unstandardized Path Coefficient ( <i>b</i> )	Standardized Path Coefficient ( $\beta$ )	S.E.	Critical Ratio (C. R.)
<b>Theoretical Structure</b>				
Self-criticism → Fear of compassion	.581	.761	.041	14.018***
Self-criticism → Self-compassion	-.179	-.287	.058	-3.090**
Self-criticism → Depressive symptoms	.043	.199	.017	2.543*
Fear of compassion → Self-compassion	-.376	-.462	.084	-4.486***
Fear of compassion → Perceptions of social Support	-.116	-.769	.013	-8.569***
Self-compassion → Depressive symptoms	-.168	-.490	.032	-5.255***
Perceptions of Social Support → Depressive symptoms	-.630	-.339	.166	-3.802***
<b>Measurement Structure</b>				
Self-criticism → Comparative	1	1.019		
Self-criticism → Internalized	.791	.959	.017	47.850***
Fear of compassion → from others	1	.917		
Fear of compassion → from self	1.100	.827	.072	15.326***
Self-compassion → Self-kindness	1	.821		
Self-compassion → Common humanity	.793	.846	.056	13.601***
Self-compassion → Mindfulness	.849	.843	.063	13.545***
Perceptions of Social Support → 1	1	.675		
Perceptions of Social Support → 2	1.279	.753	.143	8.959***
Perceptions of Social Support → 3	1.640	.809	.175	9.361***
Depressive symptoms → Affective factor	1	.670		
Depression → Somatic factor	.555	.595	.075	7.402***
Depression → Cognitive factor	.945	.790	.102	9.282***

Table 3. Bootstrap Estimates of the Indirect Effects

Indirect Effects	Standardized Path Coefficient ( $\beta$ )	S.E.	95% CI Bootstrap with Bias Correction (Lower to Upper)
1. Self-criticism → Fear of compassion → Self- compassion	$(.761) \times (-.462) = -.352$	.088	-.514, -.178**
2. Self-criticism → Fear of compassion → Perceptions of Social Support	$(.761) \times (-.769) = -.585$	.045	-.670, -.496**
3. Self-criticism → Depressive symptoms	.511	.072	.369, .648**
3-1. Two-path mediated effect of self-compassion	$(-.287) \times (-.490) = .141$		
3-2. Three-path mediated effect of fear of compassion and self-compassion	$(.761) \times (-.462) \times (-.490) = .172$		
3-3. Three-path mediated effect of fear of compassion and perceptions of social support	$(.761) \times (-.769) \times (-.339) = .198$		
4. Fear of compassion → Depression	.487	.100	.289, .677**
4-1. Fear of compassion → Self-compassion → Depressive symptoms	$(-.462) \times (-.490) = .226$		
4-2. Fear of compassion → Perceptions of Social Support → Depressive symptoms	$(-.769) \times (-.339) = .261$		

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$



Table 4. The Model Fits of the Competing Models

Model	$\chi^2$	<i>df</i>	CFI	NFI	TLI	RMSEA 90% CI [LO – HI]
1. Full mediation model only with three-path mediated effects	150.283	60	.956	.929	.942	.086 [.069 - .103]
2. Partial Mediation Model						
2-1. with the direct effect of Self-criticism on Depressive symptoms	142.612	59	.959	.933	.946	.083 [.066 - .101]
2-2. with the two-path mediated effect of Fear of compassion	140.521	58	.959	.934	.945	.083 [.066 - .101]
2-3. with the two-path mediated effect of Perceptions of Social Support	142.595	58	.958	.933	.944	.084 [.067 - .102]
<b>2-4. Self-Criticism/ Compassion Mediation Model (with the two-path mediated effect of Self- compassion)</b>	<b>133.416</b>	<b>58</b>	<b>.963</b>	<b>.937</b>	<b>.950</b>	<b>.080</b> <b>[.063 - .097]</b>
2-5. Reversed Self- Criticism/Compassion Mediation Model	136.574	58	.961	.935	.948	.081 [.064-.099]

## **Chapter 5**

### **Discussion**

Depression is one of the major mental health issues found in the college student population. Being in college can be exciting, but also stressful for many students because they need to deal with multiple challenges including being away from home, dealing with academic demands, building new relationships, making career decisions, and so on. However, highly self-critical students sometimes have a hard time coping with these challenges and become vulnerable to depressive symptoms. The results of this current study indicate that as a mediator between self-criticism and depressive symptoms, fear of compassion from self and others is one mechanism via which students who are more self-critical become depressed. Moreover, fear of compassion, which was shown in this study as a characteristic that is more prevalent in the population of self-critical people, has also been shown to be positively related to depressive symptoms; however, self-compassion and the feeling that one is important to others dimension of perceptions of social support attenuate these effects.

In this current study, I aimed to examine the relationships among self-criticism, fear of compassion from self and others, self-compassion, perceptions of social support, and depressive symptoms. The prediction of the relationships among self-criticism, fear of compassion, self-compassion, perceptions of social support, and depressive symptoms were supported by the current results. I developed the Self-Criticism/Compassion

Mediation Model to examine the mediating effects of fear of compassion from self and others, self-compassion, and perceptions of social support on the relationship between self-criticism and depressive symptoms. Furthermore, the results showed that the Self-Criticism/Compassion Mediation Model provided a good fit to the data. The results indicated that self-compassion, the feeling that one is important to others dimension of perceptions of social support, and fear of compassion from self and others were significant mediators between self-criticism and depressive symptoms.

Specifically, self-critical people are more likely to experience depressive symptoms, which is consistent with the results of previous studies (e.g., Contazaro & Wei, 2010). According to Gilbert, 2010, self-critical people have difficulty in developing self-compassion or receiving compassion from others because of their fear of positive, affiliative emotions. Moreover, the results of this current study are consistent with those of Gilbert and colleagues (2011) who found that self-criticism and fear of compassion had a positive association while self-compassion had negative correlations with both self-criticism and fear of compassion. Regarding perceptions of social support, the results of this current study are consistent with the results of prior empirical studies that indicated that perceptions of less social support were positively related to self-criticism and depression (e.g., Mongrain, 1998).

The Self-Criticism/Compassion Mediation Model had a better model fit than the alternative models. The direct effect of self-criticism on depressive symptoms still

existed, but the relationship was weak with the inclusion of the mediation effects of fear of compassion, self-compassion, and perceptions of social support. There was the three-path mediated effect of fear of compassion and perceptions of social support on the relationship between self-criticism and depressive symptoms. That is, whether the self-critical people believe others care about them and seek support from others could depend on their fear of receiving compassion. When something goes wrong or something unwanted happens to them, self-critical people fear the idea of asking for compassion and they are less likely to see comfort, support, or help from others. They would think they do not deserve receiving compassion or should not accept care (Gilbert et al., 2011). However, even if they blame themselves but are not afraid to accept kindness from others, they are more willing to believe that other people are interested in their well-being and to ask for help, support, or wisdom from others.

With the two-path mediated effect of self-compassion, there was the three-path mediated effect of fear of compassion and self-compassion in a series on the relationship between self-criticism and depressive symptoms. That is, people who have a negative view of the self in comparison with others and/or their ideal personal standards are more likely to have a self-judgmental mind, feel isolated, and ruminate about their painful thoughts and emotions. They are also less likely to be empathetic with their own suffering, acknowledge it as a common human experience, and gain a boarder perspective on their experience, and as a result of this characteristic, they are more likely to be

susceptible to depressive symptoms. In addition, fear of compassion from self and others can partially account for the relation between self-criticism and self-compassion. That is, people who are harsh to themselves tend to feel uncomfortable, or even scared of accepting kindness, which prevent them from being compassionate to their own struggles.

These findings suggested that self-critical people who are likely to fear receiving compassion would resist being generous with the self and accepting kindness from others. Then, their lack of self-compassion and social support from others would make them more susceptible to loneliness and social isolation, which are likely to accompany depressive symptoms. These results provided evidence consistent with what is found in previous literature regarding the development of self-compassion and the provision of social support that can be effective in reducing depressive symptoms, especially for those who are harshly self-critical in the face of adversity. However, self-critical people have a difficult time letting go of their own self-judgment because their self-criticism is related to their defense in response to threat (Markway, 2013). To protect themselves against criticism from others, to keep themselves feeling safe, and to feel in control of their life, they insist on self-scrutiny, self-condemnation, and self-punishment. They feel that compassion would be a threat because it would weaken their defensive mechanism, self-criticism. Thus, self-critical people are more likely to fear receiving compassion from the

self or others, which would prevent them from being kind toward themselves and asking for support or help from others.

Until they understand the reasons they are self-critical, and until they acknowledge their fear of compassion, self-critical clients might not be able to develop self-compassion and/or accept social support from others because experiencing compassion elicits a fear reaction from them (Mayhew & Gilbert, 2008). Therefore, the mediating roles of fear of compassion, self-compassion, and perceptions of social support between self-criticism and depressive symptoms are notable findings, and being mindful of these findings as one engages in treatment planning can assist counselors to help self-critical people become less depressed.

### **Limitations**

There are some limitations of the present study. Since the current study used a non-experimental and cross-sectional design, it is impossible to establish any causal relationship among the study variables. Therefore, the results should be considered only correlational until future longitudinal or experimental studies confirm them.

Additionally, only self-report data were used in the current study. Thus, the mono-method bias could influence study results, and the results of this study should be interpreted with caution. For example, the participants' rating for their level of self-criticism, self-compassion, and perceptions of social support could be different from others' observation including their family, friends, or counselors.

In addition, since only college students in a midwestern university participated in the study, the generalizability of the study may be limited to this population. Especially, the majority of participants were white female college students, so it should be cautious to extrapolate the results to other populations. This overrepresentation of white women is explained by the fact that most of participants were from the colleges where the majority of the students are white female (i.e., college of liberal arts and college of education and human development). However, the results of this study are still valid because the ANOVA results indicated that there were no significant gender and ethnic differences in all the variables although further research is needed to generalize these results to different populations.

### **Recommendations for Practice**

The results of the present study have some implications for counselors. First of all, when counselors work with self-critical clients, it would be worthwhile to explore with them why they are being self-critical. Ironically, people tend to develop self-criticism to protect themselves from rejection and to be accepted by others by being harsh with themselves (Cantazaro & Wei, 2010). Therefore, it is difficult for them to let go of self-criticism and embrace compassion from themselves and others without openly and objectively evaluating how self-criticism could be counterproductive. Neff (2003a) asserted that if people harshly criticize themselves with a belief that their self-criticism will help them to meet ideal standards, their failure, mistakes, or inadequacies could be

filtered from self-awareness in order to protect their egos. It would be harmful for them because they would not notice their mistakes or failings, so cannot learn lessons while self-compassion enables people to accurately perceive their thoughts, feelings, or actions and to correct any mistakes they make (Brown, 1999). This means that self-compassion not only creates emotional safety which can lead to growth and change and but also motivates people to acknowledge and rectify their harmful behaviors (Neff, 2003a).

In addition, it would be also important for counselors to help self-critical clients to acknowledge their fear associated with receiving compassion, to realize how self-criticism keeps them trapped in the fear of compassion, and to understand that this fear could be a major obstacle to their welfare by stopping them from seeking compassion. That way, counselors could help them develop self-compassion and receive social support through engaging in relationships in which they received compassion.

Barnard and Curry (2011) indicated that experiencing empathy from counselors could be a corrective experience that challenges self-critical people's fear of compassion through counselor' modeling of compassion. Through this corrective experience, clients could be helped to develop self-compassion. Specific psychotherapies, such as compassion-focused interventions, could be also used to help self-critical clients learn to become empathetic with themselves and thus learn to believe that they can depend on others. Interventions such as these would include Compassionate Mind Training (Gilbert & Irons, 2004; Gilbert & Proctor, 2006), Compassionate Image Building (Lee, 2005),



Mindfulness Based Stress Reduction (Kabat-Zinn, 2003; Leary, 2004), Dialectical Behavioral Therapy (Linehan, 1993), the Gestalt two-chair technique (Whelton & Greenberg, 2005), Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 1999), Mindfulness Based Cognitive Therapy (Segal, Williams, & Teasdale, 2002), and Compassion Focused Therapy (Gilbert, 2005, 2010).

### **Recommendations for Future Research**

This study relied on a college student sample primarily composed of White female students in a midwestern university. It would be valuable to investigate the Self-Criticism/Compassion Mediation Model in other populations including as people from different cultures. Some studies have found that there are cross-cultural differences in self-criticism, perceptions of social support, self-compassion, and depressive symptoms (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997; Neff, Pisitsungkagarn, & Hsieh, 2008; Taylor et al., 2004). For example, Kitayama et al. (1997) examined the difference in the evaluation of the self between American culture and Japanese culture and reported that Japanese people are more likely to engage in the process of self-criticism in order to identify their shortcomings, meet social standards, and fit in a more interdependent culture than most Americans are required to fit into.

Neff et al. (2008) compared self-compassion levels among participants in the United States, Thailand, and Taiwan and found that Thai's self-compassion level was highest, followed by Americans, and then by Taiwanese. However, Americans reported

higher levels of depression than the participants in Thailand and Taiwan. These unexpected results were interpreted by the researchers as cultural differences. They suggested that self-compassion levels are associated not with general East-West differences, but with specific cultural features in each culture. For example, they suggested that Taiwanese' lack of self-compassion would be because "the Confucian emphasis on self-improvement is intended to be constructive, it appears that a harshly self-critical mind-set, when combined with the practice of shaming children and threatening ostracism if they fail, leads to a problematic form of negative self-to-self relating in Taiwan" (p. 278). These researchers also indicated that Thais' higher levels of self-compassion would be due to Theravada Buddhism, which specially values compassion while American culture seems to have both components emphasizing a competitive, hard-driving culture and emphasizing positive self-view.

Cross-cultural differences in use of social support as a coping mechanism have also been identified by researchers (Taylor et al., 2004). Taylor and colleagues (2004) examined which strategies Asians, Asian Americans, and European Americans used to cope with stressful events in two samples of college students and found that Asians and Asian Americans tended to rely less on social support to cope with stress than European Americans, and these participants showed greater differences in seeking emotional support than instrumental support. They suggested these results may be due to different cultural values in terms of the relationship between the goals of the self and the goals of

relationships. They indicated that people in individual cultures may seek help in their social network because they perceive relationships as means for achieving their own goals, but the goals of the self for people in collectivist cultures may be promoting relationships, and they may not want to be a burden on others with their personal problems.

Based on the cross-cultural differences reported in these studies, it would be possible that there are the cultural differences in the Self-criticism/Compassion Mediation model. Furthermore, Neff and other researchers (2008) also found the sex differences in self-compassion among their American participants: American women reported lower levels of self-compassion than American men. Therefore, it would be advisable to test this mediation model with different populations.

Moreover, it would be possible to extend this model by including other variables such as attachment styles. Gilbert (2005, 2010) indicated that the capacities for compassion appear to be rooted in Bowlby's (1969, 1973, 1980) attachment theory. Therefore, attachment styles would be linked to peoples' self-criticism, fear of compassion, self-compassion, and perceptions of social support. Recently, Cantazaro and Wei (2010) and Raque-Bogdan and colleagues (2011) examined the relationships between adult attachment and mental health. Specifically, Cantazaro and Wei found that self-criticism fully mediated the relation between attachment anxiety and depressive symptoms and partially mediated that relation between attachment avoidance and

depressive symptoms. Self-compassion and social support were also found to partially mediate the relationships between attachment and mental health (Raue-Bogdan et al., 2011). Thus, it would be interesting to evaluate the Self-criticism/Compassion Mediation Model with those with high levels of attachment anxiety and avoidance.

The focus of the present study was on self-critical people's fear of compassion from the self and others. However, it would be also interesting to examine how giving compassion to others would influence their self-critical tendencies, self-compassion, social support seeking behaviors, and depressive symptoms. Gilbert and other researchers (2011) reported that compassion for others in a college student sample was positively related to self-compassion and compassion for others in a therapist sample was negatively associated with depression. In another study, fear of compassion for others was negatively correlated with mindfulness, empathic concern towards others, and perspective taking, and positively linked to self-criticism and depression (Gilbert, McEwan, Gibbons, Chotai, Duarte, & Matos, 2012). Therefore, in addition to fear of compassion from the self and others, self-compassion, and perceptions of social support, in future studies, other related variables could be included in the Self-Criticism/Compassion Mediation model to better understand the relationship between self-criticism and mental health.

## **Conclusion**

Highly self-critical people seem to be more prone to depressive symptoms, but less responsive to some treatments such as interpersonal therapy (Marshall, Zuroff, McBride, & Bagby, 2008) and standard cognitive-behavioral therapy (Gilbert & Procter, 2006). Therefore, the present study aimed to develop the Self-Criticism/Compassion Mediation model and find mediators between self-criticism and depressive symptoms. The results indicated that the Self-Criticism/Compassion Mediation model fit the data well and fear of compassion from self and others, self-compassion, and perceptions of social support play an important role as mediator in the relationship between self-criticism and depressive symptoms. That is, self-critics' fear of receiving compassion would prevent them from believing others care about them or developing self-compassion. The lack of self-compassion and perceptions of social support in turn would contribute to their depressive symptoms. Therefore, self-critical people need to acknowledge their fear of receiving compassion, be compassionate with themselves, and believe others will help or support them in order to lessen or cope with depressive symptoms.

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